#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Arnold Schwarzenegger, Governor

Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-014222

Address: 333 Burma Road **Date Inspected:** 06-May-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** Xu Xian Ping **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A Yes N/A N/A **Electrode to specification:** No Weld Procedures Followed: Yes No N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** OBG Sub-Assembly

## **Summary of Items Observed:**

On this day Caltrans OSM Quality Assurance (QA) Inspector Stefan Holmes was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhen Hua Port Machinery Company (ZPMC) at Chang Xing Island in Shanghai, China.

Non-Destructive Testing pursuant to Non-Destructive Testing Inspection Notification Sheet (Document No. 005679):

## Ultrasonic Testing:

This QA inspector performed Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an UT report for this date. The members are identified as OBG Components. The weld designations reviewed are as follows:

DP3120-001; WELD(S) 142, 143, 236, 237, 247, 248, 110, 111, 194, 195, 332, 333

DP3135-001; WELD(S) 120, 123, 184, 185 DP3138-001; WELD(S) 161, 162, 165, 166

Non-Destructive Testing pursuant to Non-Destructive Testing Inspection Notification Sheet (Document No. 005677):

#### Magnetic Particle Testing:



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This QA Inspector arrived pursuant to the above mentioned Non-Destructive Inspection Notification Sheet for the performance of Magnetic Particle Testing (MT) and Visual Testing (VT) at 15:30 hrs. as requested, to find that the notification for inspection included weld numbers that were not present, listed weld numbers with incorrect part numbers as well as omitting weld numbers required to be tested. Additionally, ZPMC MT Technicians had not signed off on their MT performance for the parts to be inspected. ZPMC QC representative identified as Liu Chuan Gang and ABF QC representative identified as Chang Bao Qian cancelled the notification for correction. ZPMC QA representative identified as Zhang Wei officially cancelled this notification for inspection.

This QA Inspector observed the following work in progress:

## BAY 9:

Flux Cored Arc Welding (FCAW) of DP3136; Weld 181~185, 112, 113, 104, 105, 96, 97, 120, 121. Welder is identified as 059416. ZPMC Quality Control (QC) is identified as Chen Xi Gang. Weld Procedure Specification (WPS) is identified as WPS-B-T-2133. Welding appears to conform to the requirements of the WPS used.

Flux Cored Arc Welding (FCAW) of DP3136; Weld 251~260. Welder is identified as 059416. ZPMC Quality Control (QC) is identified as Chen Xi Gang. Weld Procedure Specification (WPS) is identified as WPS-B-T-2233-TC-U4b-F. Welding appears to conform to the requirements of the WPS used.

Flux Cored Arc Welding (FCAW) of DP3136; Weld 144, 145, 136, 137, 152, 153, 160, 161, 168, 169. Welder is identified as 059443. ZPMC Quality Control (QC) is identified as Chen Xi Gang. Weld Procedure Specification (WPS) is identified as WPS-B-T-2133. Welding appears to conform to the requirements of the WPS used.

Flux Cored Arc Welding (FCAW) of DP3136; Weld 261~270. Welder is identified as 059443. ZPMC Quality Control (QC) is identified as Chen Xi Gang. Weld Procedure Specification (WPS) is identified as WPS-B-T-2233-TC-U4b-F. Welding appears to conform to the requirements of the WPS used.

Flux Cored Arc Welding (FCAW) of DP3136; Weld 16, 17, 24, 25, 32, 33, 40, 41, 48, 49, 186~190. Welder is identified as 203805. ZPMC Quality Control (QC) is identified as Chen Xi Gang. Weld Procedure Specification (WPS) is identified as WPS-B-T-2133. Welding appears to conform to the requirements of the WPS used.

Flux Cored Arc Welding (FCAW) of DP3136; Weld 231~240. Welder is identified as 059443. ZPMC Quality Control (QC) is identified as Chen Xi Gang. Weld Procedure Specification (WPS) is identified as WPS-B-T-2233-TC-U4b-F. Welding appears to conform to the requirements of the WPS used.

Flux Cored Arc Welding (FCAW) of DP3136; Weld 56, 57, 64, 65, 72, 73, 80, 81, 88, 89. Welder is identified as 062265. ZPMC Quality Control (QC) is identified as Chen Xi Gang. Weld Procedure Specification (WPS) is identified as WPS-B-T-2133. Welding appears to conform to the requirements of the WPS used.

Flux Cored Arc Welding (FCAW) of DP3136; Weld 241~250. Welder is identified as 062265. ZPMC Quality Control (QC) is identified as Chen Xi Gang. Weld Procedure Specification (WPS) is identified as WPS-B-T-2233-TC-U4b-F. Welding appears to conform to the requirements of the WPS used.

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Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.

## **Summary of Conversations:**

No relevant conversations.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Holmes,Stefan	Quality Assurance Inspector
Reviewed By:	Hall,Steven	QA Reviewer